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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/584,217 | 05/22/2007 | Gyung-pyo Hong | Q95214 | 9722 |
| 23373 | 7590 | 08/19/2008 | EXAMINER | |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | SAINT CYR, JEAN D | |
| | | ART UNIT | PAPER NUMBER | |
| | | 2623 | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/584,217 | HONG, GYUNG-PYO | |
| | Examiner | Art Unit | |
| | JEAN D. SAINT CYR | 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 May 2007 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ . | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Claims 1-12, filed 05/22/2007, are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gebhardt et al, US Patent 7,222,155 in view of Chan et al, US No. 6927806.

Re claim 1, Gephardt et al disclose a data filter which extracts broadcast application data for executing a broadcast application(The BR 120 also includes a data extractor 206 coupled to the tuner 202 for extracting the interactive application from the broadcast data 117, col.12, lines 49-50).

a data storage unit which stores the extracted broadcast application(The bus 208 is coupled to a microprocessor 210 which stores, via the bus 208, the extracted interactive application into a first storage device 212 as instructed by a program stored in a second storage device 214, col.12, lines 56-59).

an application execution unit(the microprocessor 210 uses the program stored in the second storage device 214 and the interactive application stored in the first storage device 212 to execute the interactive application and provide an output, col13, lines 14-17; that means the microprocessor interacts with the data storage to fetch data) which

fetches the broadcast application data from the data storage unit in response to an application execution command input by the user after the user's selection(output from executing an interactive application may be, for example, a form presenting information or a menu to a television viewer or for receiving viewer input, col.13, lines 29-31; that means the output of the microprocessor depends on the selection of the user)of the predetermined broadcast channel and executes the broadcast application using the fetched broadcast application data.

But Gephardt et al did not disclose provided by a predetermined broadcast channel among broadcast channels that are not currently watched by a user from a broadcast stream of the predetermined broadcast channel.

In an analogous art, Chan et al disclose smart and adaptive software performs a channel prediction to setup spare tuning and decoding resources to tune to a potential channel the subscriber might next select. The present invention utilizes a prediction algorithm to guess the next channel a subscriber may tune to such that the STB can anticipate the subscriber's request and provide a faster response time for channel tuning and decoding in col.2, lines 7-13; that means the system can pre-fetch information from channels that are not currently watched).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the two inventions for the benefit of giving more opportunities to users.

Re claim 2, Gephardt et al disclose wherein the broadcast application is directly selected by the user(for receiving viewer input, paragraph 47; that means the application can be directly selected by the user).

Re claim 3, Gephardt et al did not disclose wherein the broadcast application is comprised in the broadcast stream of the predetermined broadcast channel that can be provided to the user by at least one tuner that is not used currently.

However, Chan et al disclose because the STB of the present invention can identify the subscriber's channel tuning pattern the STB can avoid the time normally required to tune to a next channel by having spare system resources perform the tuning and decoding task in advance in anticipation of the channel tune(col.2, lines 21-25; that means the application can be selected from non-currently watched channel).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the two inventions for the benefit of limiting latency in selecting channels.

Re claim 4, Gephardt et al did not disclose wherein the broadcast application is selected based on user information indicating how much the user favors each broadcast application.

However, Chan et al disclose the channel prediction logic of the present invention may continuously use system resources to tune to channels frequented by a subscriber based upon past history, to channels located on a subscriber favorite list(col.2, lines 41-45; that means the system can use the viewing history and the stored channels of the favorite list of the user to see how much the user can like an application).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the two inventions for the purpose of giving more opportunities to users.

Re claim 5, Gephardt et al did not disclose wherein the user information comprises the number of times the broadcast application has been executed.

However, Chan et al disclose what channels the subscriber has tuned the most in terms of frequency and duration, col.11, lines 35-37; that means the system can verify how often and how much time that the user tune to a specific channel from the past and uses that information for getting broadcast application

It would have been obvious for any person of ordinary skill in the art at that time the invention was to combine the system of Chan with the system of Gebhardt for benefit of collecting data from the user easily.

Re claim 6, Gebhardt et al disclose wherein the user information comprises length of time the user executed the broadcast application.

However, Chan et al disclose prediction evaluation logic 275 gathers the information from subscriber interaction, which includes commands 285 received from the various input devices ,e.g., remote control, keyboard, mouse, etc., and the tuning commands 260 issued by the tuning manager 250, col.13, lines 6-10; if a subscriber does a lot of toggling between the current and last channel, the weight for the last N channels tuned logic 215 would be positively reinforced, col13, lines 56-59; that means the system collects information about how much time the user tunes to a channel and how often the user goes back and forth from one channel to another one.

It would have been obvious for any person of ordinary skill in the art at that time the invention was to combine the system of Chan with the system of Gebhardt for the purpose of making the system more efficient in pre-fetching broadcast application.

Re claim 7, Gebhardt et al disclose extracting broadcast application data for executing a broadcast application(extracting the interactive application from the

broadcast data 117, col.12, lines 49-50) provided by a predetermined broadcast channel among broadcast channels that are not currently watched by a user from a broadcast stream of the predetermined broadcast channel.

storing the extracted broadcast application data (The bus 208 is coupled to a microprocessor 210 which stores, via the bus 208, the extracted interactive application into a first storage device 212 as instructed by a program stored in a second storage device 214, col.12, lines 56-59);

and fetching the stored broadcast application data in response to a command to execute the broadcast application and executing the broadcast application using the fetched broadcast application data (the microprocessor 210 uses the program stored in the second storage device 214 and the interactive application stored in the first storage device 212 to execute the interactive application and provide an output, col13, lines 14-17; that means the microprocessor interacts with the data storage to fetch data).

But Gephardt et al did not disclose provided by a predetermined broadcast channel among broadcast channels that are not currently watched by a user from a broadcast stream of the predetermined broadcast channel.

In an analogous art, Chan et al disclose smart and adaptive software performs a channel prediction to setup spare tuning and decoding resources to tune to a potential channel the subscriber might next select. The present invention utilizes a prediction algorithm to guess the next channel a subscriber may tune to such that the STB can anticipate the subscriber's request and provide a faster response time for channel tuning and decoding in col.2, lines 7-13; that means the system can pre-fetch information from channels that are not currently watched).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the two inventions for the benefit of giving more opportunities to users.

Re claims 8-10; see rejection on claims 2, 3, 4, respectively.

Re claims 11, 12, see rejection on claims 5, 6 respectively.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199(IN USA OR CANADA) or 571-272-1000.

Jean Duclos Saintcyr

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2623

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